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Review Article

Service Users' and Providers' Experiences and Perceptions of Mental Health Accommodation Services: A Rapid Qualitative Synthesis of International Evidence

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Background. There is a high prevalence of homeless people with psychotic disorders and supported housing is often required. However, there is little evidence about supported housing services, especially in low-middle income countries. This rapid review synthesizes evidence about the experiences of users and providers of community-based accommodation services for people living with serious mental illness internationally to understand priorities for policy and practice. *Methods.* PubMed, PsycINFO, Google Scholar, and reference lists were searched to identify 1344 studies. The inclusion criteria specified qualitative studies about users' and/or providers' views of the accommodation services for adults aged 18+ years with serious mental illness. Title, abstract, and full-text screening were conducted in duplicate, and quality appraisal was conducted using the standard for reporting qualitative research tool. Data extraction was conducted using both Excel and Word documents, and we used thematic analysis to report findings. *Results.* Only 43 studies were identified for inclusion. Service users' and providers' experiences of accommodation services from high income countries and low-middle income countries were similar. Both the service providers and users appreciated housing, and service providers mentioned it was not a sufficient step towards independent living. Shortage of resources in low-middle income countries made it challenging for some service providers to provide care because they had to choose between buying medicine or food. While service users needed greater availability of service providers, providers were at risk of burnout. Although some service providers were trained to respond to stigmatizing events, some users continued to experience stigma from their family members, society, and service providers. *Conclusions.* People living with serious mental illness and service providers value the housing provision but globally their experience of this provision is relatively poor compared to mainstream society, suggesting people living with serious mental illness remain disadvantaged. Further research should explore low-cost housing options that will provide quality person-centered care for people living with serious mental illness.

1. Background

Housing is an important social determinant of health [1, 2]. People living with serious mental illness (PLSMI) are at a higher risk of being homeless [3]. Among the homeless, there is a relatively high prevalence of psychosis (estimate 29% in low-middle income countries (LMICs) and 19% in high income countries (HICs) and of post-traumatic stress disorder (estimate 27% globally)) [4, 5]. The World Health Organisation (WHO) suggests countries around the world need to upscale recovery-oriented housing services and promote independent living among PLSMI [6]. The idea of

promoting independent living does not mean PLSMI must live without any form of support but rather should be provided with support that enables them to make choices about their own lives [7].

HICs have established policy and legislations that promotes transition to community-based mental health services, including supported accommodation and day-care centers [6, 8]. These accommodation services are funded by the state health and social sectors, donors, and health insurance [6].

However, few LMICs have established policy and legislation on how to improve housing for PLSMI [6]. There is a need for LMICs to upscale mental health accommodation services that deliver recovery-oriented services [9], and yet there is little evidence about how to do this with limited resources.

The experiences of service users and providers are important [10–12] to understand how the needs of PLSMI are met. Krotofil, McPherson, and Killaspy conducted a systematic evidence review of service users' experiences of mental health-supported accommodation [13]. They synthesized evidence from 50 studies published between 1990 and 2017. They found that the experiences of users are influenced by service characteristics (for example, using a person centered and emphasis to move on approach), social relations, nature of support, and physical environment [13]. However, they did not identify any LMICs studies about the users' experiences. They also excluded service providers' experiences to understand how they contribute to the delivery of these services.

We sought to understand the experiences of both service users and providers from HICs and LMICs. We, therefore, decided to conduct a rapid synthesis of international evidence, so it is available for decision-makers attempting to improve the quality of accommodation services for PLSMI including those in LMICs. The review question is "what are the experiences and perception of users and providers of accommodation services for PLSMI?"

1.1. Theoretical Framework for the Review.

Maslow's hierarchy of needs is a psychological theory which states that people are motivated by different hierarchical needs such as physiological, safety, love and belonging, esteem, and self-actualization [14]. Maslow argued that the survival needs which are at the bottom of the hierarchy (physiological and safety) should be satisfied first, and that will enable human beings to fulfil the needs that are higher up the hierarchy (love and belonging, esteem, and self-actualization) [14]. The committee on the rights of persons with disability highlights that people living with disability face barriers when attaining human needs [15]. Therefore, we used Maslow's theory to understand how accommodation services enable PLSMI to fulfil their needs.

2. Methods

To understand the experiences of service users and providers, we have synthesized qualitative evidence [16]. We used a rapid review approach which focuses on producing

evidence in a timely manner by simplifying components of a full systematic review [17, 18]. This approach also allowed for systematic precision despite limited resources, including time and personnel available to conduct this review [17, 19]. The protocol for the review is registered on the PROSPERO database: CRD42021270505. Enhancing Transparency in Reporting the Synthesis of Qualitative Research (ENTREQ) guidelines were followed in reporting this rapid review [20].

2.1. Eligibility Criteria.

Studies were included if they reported on primary qualitative data (from users and providers) about the experiences of mental health accommodation from adults aged (18+) years with serious mental illness. Services were linked to or formed part of the provision of accommodation. We defined serious mental illness (SMI) according to National Institute of Mental Health and included articles where authors said participants primary had mental, behavioral, or emotional disorder resulting in serious functional impairment [21] such as schizophrenia, major depression and anxiety, personality disorder, eating disorder, bipolar, post-traumatic stress disorder (PTSD), and psychotic disorder. All studies written in English and published between 1990 and 2023 were eligible because the Mental Health Atlas indicates that the implementation of community-based accommodation services began in 1990 [22]. Studies were excluded if they reported only quantitative and/or focused on users diagnosed solely with substance abuse, developmental or behavioral disorders (e.g., attention-deficit hyperactivity disorder, autism, and conduct disorder), and neurocognitive disorders such as dementia [21, 23–25].

2.2. Search Strategy.

The search strategy is available in Additional file 1. Since this is a rapid review, we restricted the search to two most relevant in the field of mental health [26] (PubMed and PsyINFO) because many databases increase the number of hits with marginal increases in the number of included articles [27]. We supplemented the search using Google Scholar on the 6th of March 2021, and excluded grey literature. In each database, we combined search and MeSh terms related to the intervention (accommodation services), the population with the condition (adult living with SMI), and the study design (qualitative) using Boolean terms and connectors to search for studies. In addition, we searched reference lists of the included studies. Due to the limited number studies from LMICs, we expanded the search to include mixed-method studies and supplement findings from LMICs. All searches were updated on the 12th of May 2023.

2.3. Study Selection and Appraisal.

We used Zotero reference management software to remove duplicates. We exported all the remaining studies to Covidence software. Initially, the review team (SM, FG, CZ, LR, SA, and JG) screened 7 sets of 10 studies based on title and abstract. We did this to assess and ensure a common application of the screening criteria. The review team discussed and revised the criteria collectively. We used the revised criteria and a team of three

reviewers (SM, SA, and CZ) screened in duplicate using the title and abstracts for inclusion. The lead reviewer (SM) conducted full-text screening and discussed the eligibility of studies with coauthors (JG, FG, and LR). The lead reviewer (SM) used the 21-item Standard for Reporting Qualitative Research (SRQR) checklist to appraise the included studies and assess rigor, credibility, and quality of studies. Initially, we (SM, JG, and FG) reviewed the ratings of 5 papers to check for common understanding of how to use the tool. Final ratings were reviewed by coauthors (JG and FG) to ensure rigor and consistency in assessing the quality of the studies.

2.4. Data Extraction and Categorization of Accommodation Types. In this rapid review, SM extracted data onto a predesigned Excel and Word document form. Coauthors (SM, FG, LR, and JG) read how authors of the included studies described the accommodation type and number of years the users stay in that accommodation to categorise the accommodation services. Other extracted data included study characteristics, methods, results, strengths, and weaknesses of the study. We first tested and revised the form using 5 papers with rich data reporting studies from the range of included accommodation types. The lead reviewer discussed the resulting extraction with the coauthors, and the form and extraction were revised as necessary. The final data extraction was conducted by the lead reviewer and checked by the coauthors.

2.5. Thematic Analysis. We used a thematic approach to analyze findings from the included studies. SM created a word document with all the extracted results under the heading results. Themes were generated using a deductive approach with predetermined themes that were informed by Maslow's hierarchy of needs theory [28, 29]. The coauthors (SM, FG, and JG) conducted a comprehensive manual process of reading, coding, and identifying themes [28]. The resulting themes and subthemes were discussed and revised during meetings until consensus was reached. In the following sections, we present the description of studies that were included and a detailed analysis describing each theme in relation to the users' and providers' experiences of accommodation services.

3. Results

3.1. Overview of Included Studies. The database search yielded 1334 records. A total of 223 duplicates were removed and 1101 studies were screened based on title and abstract. Only 256 studies were identified for full-text screening. Of these, only 43 studies met the inclusion criteria and were included for analysis (see Figure 1 for the screening and selection results and Table 1 for summary of the included studies). Out of 43 studies, 30 from HICs and 4 from LMICs were rated as high quality (score of 18–21) because the authors were transparent about most of their standards for reporting qualitative research. 5 from HICs and 2 from LMICs were rated as moderate quality (score 16-17) because the authors were not transparent about the context

in which the study was conducted, study design, and data analysis methods. 2 studies from HICs were rated low quality (score 15 and below) because the authors were not transparent about the research design, sampling strategy, data collection methods, and limitations of the study. Although we did not exclude papers based on the quality appraisal, we took account of the quality during analysis.

Thirty-seven studies from HICs and four studies from LMICs used a qualitative approach; two from LMICs used the mixed-methods approach. The study designs used by authors were case study, longitudinal, exploratory, explanatory sequential, narrative study design, observational, phenomenological, interpretative and constructionist, grounded theory, and participatory research. Most of the studies were from HICs, i.e., Canada (n-11), Australia ($n = 7$), United States of America (USA) ($n = 10$), Sweden ($n = 3$), Norway ($n = 3$), Spain ($n = 1$), Denmark ($n = 1$), and England ($n = 1$). Only 6 studies were from LMICs, i.e., Malaysia ($n = 1$), South Africa ($n = 1$), India ($n = 2$), Ghana ($n = 1$), and Ethiopia ($n = 1$).

Findings from the studies had either users' experiences (17 HICs and 4 LMICs) or providers' experiences (15 HICs only) or both users' and providers' experiences (5 HICs and 2 LMICs). Most data were collected using semistructured individual interviews either face-face or telephonic ($n = 30$), with small numbers using focus group discussions ($n = 6$), unstructured interviews ($n = 2$), individual and focus groups ($n = 4$), and appreciative inquiry conversations ($n = 1$).

We categorized studies into the following types of accommodation: halfway houses, supported housing, independent living units, and living independently which we describe in the following.

3.2. Categorization of Accommodation Services

3.2.1. Halfway Houses. We defined these as a temporary accommodation for users who have recently been moved from being homeless or discharged from hospital, with onsite staff providing treatment, structured programmes, and psychosocial support [30–33]. Four studies (2 HICs and 2 LMICs) were classified under this category [34–38]. The length of stay ranged from 3 to 24 months [34, 36–38]. Activities described by both the users and providers included group-based psychosocial support and therapeutic programmes (for example the use of cognitive behavioral therapy), structured leisure and physical activities, treatment adherence, abstaining from substance use, and support where needed for activities of daily living [34, 36–38].

3.2.2. Supported Housing. We defined these as shared residential facility offering unlimited length of stay, with 24 hrs onsite staff to provide care, treatment, and psychosocial support (e.g., group homes) [30, 31]. Six studies (4 HICs and 2 LMICs) described the users' and providers' views under this category. Length of stay ranged from 2 to over 20 years [39–44]. The services that were described by the users included providing food, assistance with personal care, medication administration, and indoor and community leisure activities [39–44].
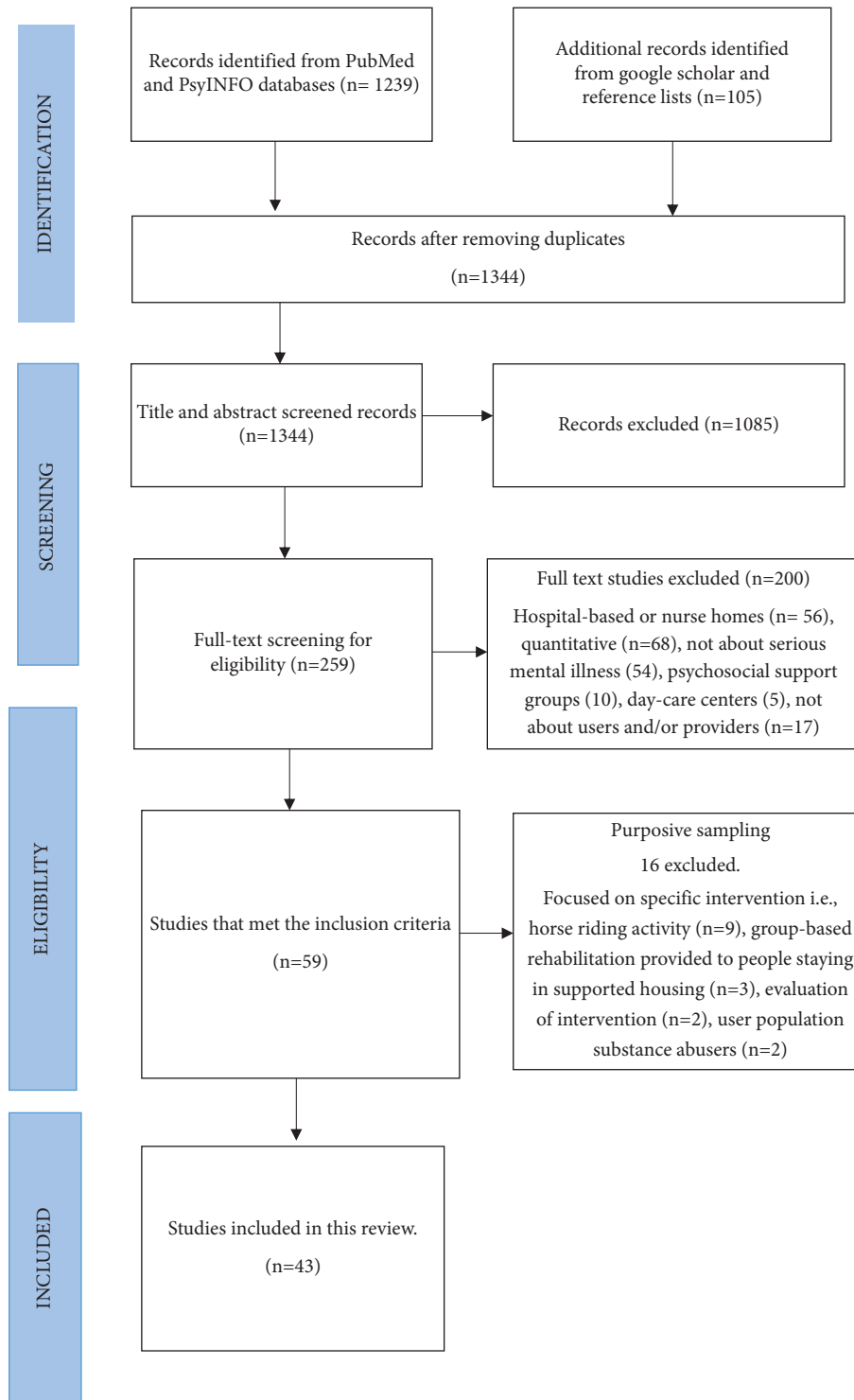
FIGURE 1: PRISMA flow diagram describing identification, screening, exclusion, and inclusion.

3.2.3. Independent Living Units. We defined these as permanent housing specifically for PLSMI with staff available offsite to provide 24 hours care. Twenty studies (19 HICs and 1 LMIC) were under this category. Independent living units were where users are provided with their own keys and have full tenancy rights; rent was paid by the state or users or other forms of funding [45–53]. Some of these permanent

housing used the housing first approach (prioritizes the provision of permanent housing before treatment [54]), and the assertive community treatment (ACT) staff were available offsite to deliver care 24 hours [33, 55–57]. Some users were expected to stay for 2-3 years, with possibilities for lease renewal [35, 46–53, 58, 59]. Users have regular contact with mental health staff available offsite to encourage

TABLE 1: Summary of articles according to their accommodation service category.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
Half-way houses					
(1) McKenna et al. (2016)	Australia; Melbourne, Victoria	Each of the 12 units are equipped with a communal kitchen and lounge area and shared bathroom and laundry facilities. There are designated spaces for gym equipment, separate male and female living areas, a sensory modulation room, and a communal recreation room with Internet access that also allows a location for various group activities. The CCU also has several court yards for outdoor recreation and quiet spaces including a vegetable garden, which the consumers assist to maintain. The CCU is staffed with 20 employees across the multidisciplinary spectrum. The service provides treatment, supervision, support, and life skills for those whose needs cannot be met adequately by other available programs and services. The average length of stay of consumers is 16 months	Seven current consumers; the consumers had been at the CCU for between 12 months and 2 years. 11 Staff from the following disciplines: 3 informal carers, a manager, a medical doctor, six registered nurses, and three allied health workers (a SW, an OC, and a psychologist). The staff had been at the CCU for between 6 months and 15 years	Unremitting and severe symptoms of mental illness	19
(2) Gyamfi et al. (2020)	Ghana; Kumasi Metropolis and Ejisu-Juabe municipality, both in the Ashante region	Shared model of service delivery, which aim to reintegrate adult consumers of mental health services into their communities. Shared halls and rooms for living, care is recovery oriented, strength-based, designated rehabilitation focus, voluntary engagement in rehabilitation, individualized care planning, transitional support, role of peer support. Treatment and support include cognitive behavioral therapy, living skills support and development, structured leisure and physical activities, social integration and economic empowerment, and evidence-based therapeutic group programs	Users were 19, 11 were males and 8 were females. Age group ranged from 20 to 70. For providers, 2 were OT, 1 was a psychiatric nurse, 1 was a psychiatrist/prescriber, 1 was a SW, 3 were males and 2 were females, 3 were single, and 2 were married. Their average years of working experience was 3 years	Psychotic or severe conditions, such as schizophrenia, depression, bipolar, and drug addiction	21

TABLE 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
(3) Parker et al. (2017)	Brisbane Australia	The CCU provides 24-hour care around living skills and community integration, with opportunities for engagement in evidence-based therapies. The aim is to support consumers with severe and persisting mental illness to achieve personal recovery through recovery-oriented rehabilitation care over a 6–24 month period	Participants had worked at the site for an average of 2.6 years (range: 1.4–3.5 years). Seven participants had worked in other mental health settings; none had worked at different CCU. A range of junior and senior roles were represented including nursing ($n = 5$), allied health ($n = 2$), and nonclinical support ($n = 1$). Five female and three male staff members were interviewed	Severe and persisting mental illness	20
(4) Gamaldien et al. (2021)	South Africa	The Gateway was one of two 40-bed step-downs/step-up residential-based rehabilitation facilities, the services are headed by a social worker and staffed by a multiprofessional psychiatric team, offered a group-based weekly programme consisting of 14 group activities and eight themed projects addressing topics such as psychoeducation, treatment adherence, self-care, activities of daily living, creative exploration, and social integration skills	5 men aged between 27 and 55 years, 3 were colored, 1 black, and 1 white. Admissions were from 2010 to 2012	Schizophrenia, bipolar affective disorder, and schizoaffective disorder	20
Supported housing					
(1) Saavedra et al. (2012)	Spain	The special CHs are residences, housing between 15 and 20 people, with 24 h, nonclinical, professional support. Care homes are defined as social resources and are designed for severe mental patients. The care home is a setting where residents' day-to-day routines are supervised by staff living with them in the same areas	On average, the carers in the sample had worked at the care homes for 7.4 years. The group consisted of three men and seven women. The average age was 39.75, range 27–48. Four of the participants had university backgrounds, with two psychologists and two trainee social educators	Schizophrenia, schizotypal, or delirious idea disorders, with 91.7% receiving medical treatment and 38.1% psychosocial treatment	18

TABLE 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
(2) Wilton (2004)	Hamilton, Ontario	Residential care facilities provide accommodation for more than 700 people with SMI. Facilities are privately owned and have been an important source of accommodation since the 1970s. Operators are paid by municipal and provincial governments to provide food, shelter, and basic care/rehabilitation Assisted living facilities provide support for daily living to residents who cannot live independently.	Twenty-two people participated in the study. They ranged in age from 23 to 57, with an average age of approximately 38 years	SMI, most commonly schizophrenia	18
(3) Robison et al. (2018)	Canada	Supportive services include meals, laundry, and housekeeping, as well as assistance with grooming, hygiene, and medication administration; more than one half of these facilities provide supervised housing to individuals with mental illness Community-based rehabilitation services that provides long-term accommodation and opportunities for PLSMI to continue living in community instead of being institutionalized. They had untrained caregivers proving care	Seven males and one female between ages 60 and 68 volunteered to participate. Years of residing ranged between 2 and 34 years	Schizophrenia	20
(4) Low et al. (2019)	Malaysia. Perak	The facility services include helping clients develop a sense of independence, catering to their individual needs, offering a homely atmosphere where they participate in in-house activities, and providing a sense of community living facility	8 participants, with ages that ranged from 30 to 45 years, and they had lived in the center for between 5 and 8 years. The participants were two Indians, two Malays, and four Chinese	SMI	21
(5) D'Souza et al. (2021)	India	has provided accommodation for clients who can live independently with mental health workers' support. The 24/7 staff team includes five professional staff, four support staff, and one watch man. Each professional staff is assigned a few clients so that time and quality care can be given to them	Family care givers of 16 clients currently living at facility	13 clients are diagnosed with schizophrenia, 1 with bipolar affective disorder, 1 with schizoaffective disorder, and 1 with mood disorder due to brain injury	16

Table 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
(6) Drake (2014)	Sydney	Supervised accommodation characterized by congregate living, which can include dormitory-style rooms. Some also provide additional services including meals, general cleaning, and clothes laundering. Users are segregated and isolated, with untrained people to manage those with SMI. They use bells and whistles to manage behavior, food only accessed at scheduled time and locked kitchens	Seven current residents and 3 people who had left a licensed boarding house participated in an unstructured interview. 15 staff from community organizations, 12 from government agencies, and 3 proprietors of licensed boarding houses	SMI and intellectual disability	18
Independent living units					
(1) Carpeter-Song et al. (2012)	USA, Washington DC	SH units that embody the structure and philosophy of "supported independent living." Each recovery community (RC) is assigned two case managers, who together comprise the recovery team at the agency. Case managers do not reside in the RCs; rather, services are provided through regular visits to the RCs. RC residents maintain strong ties to the agency through the recovery team, while at the same time are responsible for the upkeep of their own apartments and are independent in their daily routines	Most residents of the RCs are female (75%) and identify as African American (83%); the average age of residents is 47.11 years	SMI: many of whom have co-occurring substance use disorders, histories of trauma and homelessness and involvement in the criminal justice system	17

TABLE 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
(2) Piat et al. (2020)	Canada, cities (Toronto: 29 single units), (Montreal: 35 units), (Qubec city: 2 sites housing 45 and 182 single units) and St John's Newfoundland with 100 single units	Residents sign a lease guaranteeing full tenancy rights; lack of activity restrictions; rent limited to 30% of income; optional support services unlinked with housing eligibility; and the option to intensify services without risk to housing tenure. The Montreal and Toronto sites provide congregate housing, while the two Quebec sites and the St. John's site offer scattered-site housing. Montreal and Toronto have staff available onsite, moderate level of support and their emphasis on move on is limited. 2 Quebec city have no staff on-site, low support and limited emphasis on move on. Lastly, St. John's has onsite and no staff onsite, moderate support, limited emphasis on move on Residential continuum gradually transitions individual to community living through placements in progressively less restrictive and less intensively staffed housing arrangements. The area consists of security, staff offices, and common spaces at the street level. They have private bath, fully equipped kitchen, furniture, and linens. Many residents	24 tenants agreed to be interviewed; the mean age was 46, 18 were males, 6 were females, 1 was from Haiti, 1 from Mexico, 22 from Canada	Psychotic disorder, mood disorder, anxiety disorder, obsessive/compulsive disorder, and addiction	21
(3) Tsai et al. (2010)	Chicago	lack fully developed independent living skills needed to maintain an apartment so they highly supervised. Those in independent housing live independent in the community throughout the city but they receive comprehensive case management services. Independent housing, they have own apartments and/or single room occupancies and keys, own bathroom, and kitchen for cooking	Twenty clients in supervised housing were randomly selected (10 clients from each residential program) and all clients approached agreed to participate	SMI (schizophrenia-spectrum disorder, bipolar disorder, and major depressive disorder) and a substance use disorder (any substance dependence or abuse diagnosis)	18

TABLE 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
		Person-centered, focusing on user involvement, self-determination, and hope, and supporting each person in his/her individual recovery process. Mental health services in the municipality encompass outreach work, day-care services, special education, and home support. Approximately 15–20 people live in each unit, in two-room apartments with a bathroom and a kitchenette.			
(4) Petersen et al. (2015)	Danish, Denmark	Staff works 37 h per week, and they are recruited from a range of professional backgrounds: social workers, social and health care assistants, nurses, and occupational therapists. Staff help residents with the preparation of meals, laundry, cleaning, arranging trips, and social activities. The main entrances to the apartments open into shared corridors, where common rooms are available for watching TV and cooking meals	12 service users who had been living in three different SH services for between 6 months and 5 years. The sample included 6 women and 6 men aged 21–57 with a mean age of 35	Schizophrenia and bipolar disorder	19

TABLE 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
		The sheltered houses are organized as units consisting of one building complex with 7–30 one-person fully equipped apartments with all amenities such as their own bathroom, kitchen, and living room and access to a shared accommodation room. The residents are offered a 3-year tenancy agreement which must be renewed at the end of the term. Live-in staff (employed by the municipality) attended each unit 24 h a day, 7 days a week (24/7). The main purpose of these facilities is to maximize the			
(5) Eirik et al. (2016)	Norway, Trondheim, city in central	personal autonomy of residents and encourage them to do as much as possible for themselves including personal care, shopping, cooking, domestic chores, and leisure time activities with the support of the staff as needed. Most residents have daily or weekly meetings with a mental health nurse or a service provider to discuss topics such as how to cope with the psychiatric disease, somatic health, household tasks, and financial issues. All services offered are voluntary, meaning that users can decide whether they want to accept help or not	A total of 14 participants (8 men and 6 women). They had lived in the current unit from 2 months to 12 years and none were employed	SMI	21

TABLE 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
(6) Shepherd et al. (2019)	Queensland Australia	Support people with mental illness who were at risk of homelessness and self-neglect. Care for clients was provided by staff from three government departments and an NGO. Department of Housing provided a permanent home for the person support workers assist with a range of practical task such as assistance with shopping; supporting participation in community activities; providing social and emotional help; and maintenance of physical health, such as monitoring compliance with medication and encouraging a healthy lifestyle	27 support workers and 10 managers from 20 services across Queensland (9 metropolitan and 11 regional)	SMI	19
(7) Ericsson et al. (2016)	Sweden	Support in everyday life involving the content of their assignment; (ii) the inside and outside of the home i.e, the arena; (iii) relationship aspects, i.e., the interaction between the user and the HSW. These are obligations that the HSW is supposed to relate to in everyday work	Twenty-five people were included, twenty-two were women and three were men. All twenty-five employees worked at private housing	SMI	16
(8) Deane et al. (2012)	Australia, Southeast Allawarra and Sydney areas	The most common type of accommodation provided was that of a bedroom, shared cooking facilities, and shared bathroom. However, a minority provided residents with their own bathroom and kitchenette. A very small minority provided part board (one meal per day) or full board (three meals per day)	Participants were 23 boarding house manager and owners, from both the Illawarra (N07) and Sydney city and Inner West areas (N016). Of these participants, 74% (N017) were male and 26% (N06) were female	Schizophrenia, depression, marijuana, and alcohol	17
(9) Lindvig et al. (2021)	Norway	Colocated (fully equipped) apartments with staff onsite either during the day only or both day and night and high support, with various levels of emphasis on moving out	5 females and 4 male staff, representing both mental health nurses, SW, and other professions within the interdisciplinary context of community mental health	SMI and/or drug addiction	21

TABLE 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
(10) Walker and Seasons (2009)	Canada, Southwestern Ontario, within catchment area of the Waterloo Region	Involves normal, integrated housing that is adequate and affordable, paired with flexible and individualized mental health support services. This model focuses on person-centered support, self-help and natural supports and de-emphasizes the role of professional services. People are empowered to choose, get, and keep the housing and support services they want and thus are able to experience their residence as a home rather than as housing	14 single men, 14 single women, and 3 couples. The age of participants ranged from 22 to 56, with an average age of 41 years (SD = 9.60)	SMI	18
(11) Sandhu et al. (2017)	England	Residential care homes are staffed 24 h a day, seven days a week, with a high level of support provided, including meals, cleaning, personal care, and supervision with medication. Clients share communal facilities and placements tend not to be time limited although clients can be supported to transition to more independent settings. SH services can be provided as shared or individual tenancies with staff onsite available most of the day (up to 24 h). Placements are usually time limited, with services supporting clients to gain skills needed to move to a more independent living situation. Floating outreach services provide staff visiting clients living in time-unlimited independent tenancies. Staff support clients emotionally and assist them to take on more and more responsibility to manage practical tasks (shopping, cooking, cleaning, budgeting, etc.), with the aim of being able to reduce and stop visiting staff support over time to gain skills needed to move to a more independent living situation	Residential care mean age was 45.4, SH mean age was 33.8, and floating outreach mean age was 39.8. 6 males were from residential care, 5 males were from SH, and 6 were from floating outreach. Females (4 were from residential, 5 from SH, and 4 from floating outreach). Mean years in current accommodation (3.7 residential care, 4.2 SH, and 2.1 floating outreach). Mean age (52 from residential care, 39.5 from SH, and 43.6 from floating outreach). Males (5 residential care, 2 SH, and 5 floating outreach) Females (5 residential care, 8 SH, and 5 floating outreach). Manager/ deputy manager (5 residential care, 3 SH, and 4 floating outreach) and support worker (5 residential care, 7 SH, and 6 floating outreach). Mean years of working (8.2 residential care, 6.3 SH, and 4.9 floating)	Complex SMI problems	21

TABLE 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
(12) Padmakar et al. (2020)	South India	SH provides structured, noninstitutional, and independent living arrangements along with supportive services aimed at providing medical attention, rehabilitation, and the attainment of life skills. Focuses on functioning impairment, social relationships, daily living skills, and to promote recovery and self-reliance	11 patients mean age was 56, ranged (3 were between 40 and 49), 4 were 50 and over, 4 were 60 and over, all were women. 14 members of staff involved in SH, including healthcare workers, community workers, case managers, project managers, and management members	Schizophrenia (7), psychosis (3), and mood disorder with psychotic symptoms (1)	17
(13) Lindström et al. (2011)	Northern Sweden	A self-contained apartment, voluntarily attending traditional home- and community-based rehabilitation guided by an occupational therapist (100%) and a social worker (50%), who were called coaches. There were also shared facilities, such as an "open" apartment that was available to all residents for socializing. Coaching and support were offered to both individuals and groups. The housing was designed to become a permanent housing solution, if so desired by the resident, with a gradually reduced amount of support and increased independence	Six residents (four male two female); their ages varied from 24 to 37 years	5 have been diagnosed with schizophrenia, and one with borderline personality disorder	18
(14) Tiderington et al. (2020)	USA	Treatments first prioritize and assume a need for mental health and substance use treatment before living independently or being competitively employed. Housing first (HF), as the name implies, has reversed this approach by prioritizing immediate access to independent housing. HF reflects a different conceptual understanding of recovery from mental illness instead of matching step wise services to the degree to which one's symptoms have resolved, recovery in HF is understood as an ongoing process in which people can have satisfying and contributing lives without a resolution of symptoms	Individuals who were over 21 years of age, Global assessment of functioning (GAF) score above 65, housing stability, absence of current substance use disorder, and one or more signs of recovery such as having a job, being involved in meaningful activities, taking active part in a social group, and/or having a stable partner	DSMIV axis I diagnosis of serious mental illness	17

TABLE 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
(15) Patterson et al. (2015)	Canada	Participates were divided into high need and moderate need (based on the complexity and intensity of their needs). High needs were randomized into either housing first with assertive community treatment, wherein participates could choose from up to three market lease apartments or congregate housing with onsite support, wherein participants had their own room, and bathroom, but shared amenities, receive 3 meals a day, activity programming and various health/social service onsite OR treatment as usual which provided no additional housing or support services beyond what existed in the community. Moderate-need participants were randomized to one of the two (a) housing first with intensive case management (ICM) wherein participants could choose from up to three market lease apartments across various neighborhoods and services were provided by a team of case managers who connected participants to existing services; and (b) treatment as usual	At the baseline, the mean lifetime duration of homelessness was 6 years and 30% had completed high school. The most common mental disorders among the sample, based on the MINI, were substance dependence (67%), psychotic disorder (49%), and major depressive episode (49%). The age of the follow-up sample ranged from 21 to 66 years (M 43 years) and included 25 men (58%), 16 women (37%), and two (5%) transgendered individuals	Substance dependence (67%) psychotic disorder (49%) and major depressive episode (49%)	19

Table 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
(16) Stefancic et al. (2012)	New York City	Allow participants to receive treatment rather than serve their sentence in jail. While in the program, participants receive support services and must provide regular follow-ups to the courts who supervise their compliance with treatment and program requirements. Services vary greatly in the range and intensity; they can include case management, court advocacy, drug and psychiatry treatment, vocational training, and housing. Services are typically provided by multidisciplinary assertive community treatment teams that have been modified to integrate principles of client choice and recovery, or for those with more moderate needs, by intensive case management teams	The majority of participants were male ($n = 14$, 70%) and African American ($n = 14$, 70%); 5 were Hispanic; and 1 was Caucasian. Participants' mean age was 37, ranging from 19 to 52. At the time of the study, participants had spent on average, just less than a year in the HF program, ranging from 2 to 25 months. Time in the ATI program also varied, with some participants having recently completed the program whereas others were still actively participating. All participants were part of the ATI program or conditional release upon entering the HF program	Axis I psychiatric disorder, three were dually diagnosed with an Axis II psychiatric disorder, and 70% of participants were diagnosed or entered mental health services prior to the age of 18. Diagnoses included schizoaffective disorder (20%), bipolar disorder (20%), major depression (20%), schizophrenia (15%), and anxiety disorders (15%; note: percentages add up to more than 100% as individuals were sometimes diagnosed with two disorders). Rates of co-occurring disorder were high, with 15 participants (75%) diagnosed with a substance use disorder, including half for polysubstance dependence	19
(17) Barrenger et al. (2015)	USA	ACT interdisciplinary teams share the caseload of 60–65 residents (staff-to-resident ratio of approximately 1 : 10), providing service coverage 7 days a week, 24 hours a day. Team members all perform core case management activities although some specialize in specific areas such as nursing, substance abuse, and vocational education	The two teams were composed of a team leader and six team members. Five of the 14 case managers had graduate degrees that included social work, nursing, and psychology and 8 had undergraduate level education	serious mental illness, often co-occurring substance use and are homeless	17
(18) Aubry et al. (2015)	Canada	The program has a housing coordinator who assist program participants with finding a housing, negotiating a lease with a landlord, moving into and adapting to new housing and mediating any difficulties with the landlord. Individualized support is made accessible and delivered by members of an ACT team	Ten of the landlords were property managers and 13 landlords owned the rental property. These landlords rented to tenants located in the tricity area ($n = 17$) and in the adjoining rural region ($n = 6$)	Severe and persisting mental illness	19

TABLE 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
		Support services, usually in the form of ACT teams, are located offsite but are available on-call 24 h a day, 7 days a week and most services are provided in the consumer's natural environment (e.g., apartment, workplace, and neighborhood). The service is time unlimited in that it is offered if a consumer needs that level of support	Total of 41 service providers from both housing first and treatment first. 20 were from housing first and 21 were from treatment first. From the housing first 9 were males and 11 were females, 12 were White, 5 were African American, 1 was Latino, and 2 were other. 6 had been employed for less than a year, 6 were employed between 1 and 3 years, and 8 had been employed for more than 3 years. 13 were graduates, 4 had bachelor, 2 had		
(19) Henwood et al. (2011)	New York City		associate, and 1 had high school.16 had previous experience with similar client population and 4 had no experience. For treatment first, 7 were males and 14 were females. 6 were White, 9 were African American, and 6 were Latino. 9 had worked for less than a year, 7 had been working for between 1 and 3 years, 5 had been working for more than 3 years. 7 were graduates, 9 had bachelor, and 5 had associate. 16 had previous experience with similar client population while 5 had no experience	DSM axis 1 psychiatric disorders and substance abuse	19
(20) Sharif et al. (2021)	Canada	ACT teams offer, among others, crisis assessment and intervention, assistance with symptom management and daily living, pharmacological and behavioral interventions, substance use treatments, relapse prevention, recovery, and social support services, as well as vocational housing services	Psychiatrists, nurses, social workers, peer support workers, and mental health workers	Persisting severe mental illness	18

TABLE 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
(21) Henwood et al. (2014)	New York	Permanent housing could be congregate setting or independent apartment living. Treatment-first model services mean that temporary shelter is initially offered followed by transitional housing before permanent housing can be attained. Graduating through these stages of housing requires that individuals meet treatment goals that include prolonged abstinence	Housing first (9 males, 11 females, 12 White, 5 African American, 1 was Latino, 2 were other, 13 were graduates, 4 had bachelor, 2 associate, 1 high school, 6 had worked for less than a year, 6 had worked for 1–3 years, and 8 had worked for more than 3 years) treatment first (7 were males, 14 were females, 6 were whites, 9 were African American, 6 were latinos, 7 were graduates, 9 had bachelors, 5 associate, 9 had been working for 1 year, 7 had been working for 1–3 years, and 5 had been working for more than 3 years)	An axis I diagnoses of serious mental illness such as schizophrenia or bipolar disorder and a history of substance abuse	18

Living independently

(1) Milbourn et al. (2014)	Australia, Bentley	Support provided to individuals with SMI labelled "hard to engage" in form of medication, and crisis management. They provide personal recovery services, peer support, and living skills programs	3 women & 8 men, all unemployed aged 27–53	Psychotic, schizophrenia, and schizoaffective	20
(2) Krupa et al. (2005)	Canada, Eastern Ontario	Provides comprehensive array of continuous treatment, rehabilitation, and support services to help individuals with SMI who are high service users adjust to community living (interventions related to management of medications, side effects, family support, nutrition, and physical health)	52 participants with mean age of 46.6 years, equal number of males and females, length of time receiving ACT services was 60.57 months, with range from 4 to 132	SMI	16
(3) Petersen et al. (2014)	Norway	Team-based, service-delivery model for providing comprehensive community-based treatment to clients with severe and persistent mental illnesses who did not benefit from traditional treatment (follow-up treatment and aid in practical matters and community engagement activities)	Eleven participants (nine men and two women) aged 27–63 years (mean, 39 years) were included in the study. The duration of ACT was 14–30 months (mean, 22 months) at the time of the first interview	Hebephrenic schizophrenia, paranoid schizophrenia, undeferential schizophrenia, residual schizophrenia, bipolar affective disorder, psychosis with delusions, paranoid psychosis/delusions, alcohol, cannabis, amphetamine, and prescription drugs	21

TABLE 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
(4) Gandy-Guedes et al. (2018)	USA, Central Virginia	Individual-centered and self-contained mental health program that provides psychiatric treatment, rehabilitation, and support services to persons with SMI. The primary principles of programme of ACT guide a multidisciplinary team, comprised of SW, rehabilitation counsellors, nurses, and psychiatrists, which provides long-term, intensive services seven days a week, 24 hours a day. Services provided by programme of ACT teams cover a wide range of health- and psychosocial-related areas, including intake and ongoing assessment of needs, case management, vocational rehabilitation, financial and housing assistance, psychiatry, and linkages to medical-related services	12 males, 5 females, 8 were African American or Black, 6 were Caucasian, 2 were American Indians, and 1 was Hispanic. Mean age was 42.5	Schizophrenia or schizoaffective, bipolar disorder, depression or anxiety, substance use diagnosis (abuse or dependence, in remission)	19

TABLE 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
		ACT help ACT clients build relationships between one another, and between ACT clients and nonmentally ill community volunteers within the context of recreational outings. Motivate clients towards recovery goals, help overcome stigma by teaching appropriate behaviors, and by building client self-esteem through supportive worker/clients' relationships. Having groups and community-based activities to facilitate social integration, ACT Christmas. Community integration activities such as going local farmers' market, local department stores, hair cutting schools, pleasurable excursions to the zoo, amusement parks, walking group for fitness, and restaurants. The ACT is tasked to provide vocational opportunities like finding employment and educational opportunities, arranging volunteer work, offering a vocational group	All the participants had at least 6 months experience as workers on an ACT team. Gender was reported as 46% male and 54% female. Regarding race, 46% were Caucasian, 42% were African American, 8% were Hispanic, and 4% were Asian American. Out of 24 participants, seven were nurses, and of the 16 individual interviews conducted, six were with nurses. Other disciplines consisted of three team leaders (master level social workers), two peer counsellors, three vocational specialists, two substance abuse specialists, six general caseworkers with degrees in SW, counselling, or psychology, and one program director		
(5) Linz and Sturm (2016)	Northeast, United States			All the client's fit ACT's criteria which were having a diagnosis of SMI, frequent psychiatric hospitalizations, and nonresponse to traditional outpatient services	18

Table 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
(6) Hurley and O'Reilly (2017)	London, Ontario, Canada	Intensive mental health program currently available for people living with severe and persistent mental illness. ACT teams deliver services to clients living under varying conditions of adversity. Clinicians on these team's pool interprofessional knowledge and share the responsibility for all clients on the team's caseload. ACT teams strive to be innovative, flexible, and creative in working with clients to achieve the best recovery possible. Clients are usually referred to ACT teams because they have not fared well in traditional psychiatric services either due to lack of adherence or a lack of response to treatment. Consequently, ACT clinicians often must confront treatment nonadherence while attempting to foster a positive client response to service contact	The subjects had an average of 12 years working in mental health (range: 3–30) and an average of 8 years working on an ACT team (range: 1–16). There were 8 female and 7 male participants with an age range of 28–60. All the participants had experience working with clients on community treatment orders which accounted for between 15 and 30% of cases on the four teams, including SW, nurses, and OT	SMI	17
(7) Krupa et al. (2009)	South-eastern Ontario, Canada,	Provides continuous services to promote the community adjustment of persons with SMI and high service usage. Critical features of the model include (1) organizational elements such as team responsibility for individual care, shared caseloads, daily planning meetings, 24-hour availability, and a low staff-client ratio; (2) continuous and intensive services delivered primarily in community settings and focused on promoting community adjustment; and (3) a multidisciplinary team structure that involves all providers in direct clinical work, including generic community work and activities specific to the provider's training and experience	Eighteen ACT staff participated in the interviews, representing a variety of professions including nursing, psychology, SW, and psychiatric rehabilitation	Person with SMI and high service usage	13

TABLE 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
(8) Chen and Herman (2012)	New York city	Comprehensive, intensive, assertive outreach and treatment services delivered in the community by an interdisciplinary team. An ACT team typically maintains a 1-to-10 staff-to-client ratio and has no explicit time limit on the duration of treatment. They help improve psychosocial functioning and decrease caregivers' burden	We recruited four ACT teams in New York City. Age ranged from 24 to 56 with mean age of 38.2. Females were 13, males were 11, 7 were Black, 1 was Hispanic, 13 were White, 3 were not identified, 1 had 2-year college, 6 had bachelor's degree, 15 had master's degree, 1 had M.D. Mean years of experience in mental health was 8.7 ranging from 0.4 to 23, 0 experience with current agency years mean was 3.7 with range between 0.02 and 9.9. Experience in current position mean was 3.0 ranging from 0.02 to 9.9	SMI	17
(9) Appelbaum and Le Melle (2008)	New York, Manhattan	ACT members visit users at their house to remind them about their goals and give feedback, involve both family and friends. Help users develop treatment plan, do things on their own, frequent contact with patients, education about medication compliance, and give users food and clothes	Users had age mean was 41.2, 13 males and 8 females, 15 were African American, 1 was White, and 6 were Hispanic; years in ACT: they had mean age of 3.4. Providers had age mean was 38.2, 9 were males, 14 were females, 12 were African American, 6 were White, 5 were Hispanic, 1 was Asian, 1 was American Indian. Years in ACT had mean age of 3.0	SMI, schizophrenia	19
(10) Matscheck et al. (2020)	Sweden 3 municipalities	Supported individual living focuses on the person's needs to be able to live a normal life in the community and includes help in taking care of one's home, but also developing social relationships, using other services available to all persons living in the community and other situations which occur in daily life	Users were 12 women and six men, ranging in age from 34 to 73 years. Providers included 13 support workers, nine women and four men, with experience ranging from several months to nearly 20 years	Prolonged SMI (usually at least 6 months), with no criteria for specific diagnosis or institutional history. This covers a wide range of diagnoses, most commonly psychosis related, bipolar or severe depression, and sometimes also neuropsychiatric diagnoses such as high functioning autism	19

TABLE 1: Continued.

Author and year	Country; context	Description of service	Users and/or provider characteristics	Diagnosis	SRQR
(11) Asher et al. (2018)	Sodo district in the Gurage, zone of the Southern Nations, Nationalities, and Peoples' Region of Ethiopia	CBR is a recovery-oriented, emphasizing hope, human rights, and the participants' own goals. Intervention delivery was guided by the RISE manual	Ten people with schizophrenia and their families. Men 4 in first 2 months and 5 in 12 months, women 3 in first 2 months and 3 in 12 months, male caregivers 1 (2 months and 12 months), female caregivers 7 in 2 months and 6 in 12 months, CBR supervisors 2 in 2 months and 2 in 12 months. CBRWs 2 focus groups ($n = 10$), health officers 2 (2 months), community members (3 in 12 months)	Schizophrenia, schizoaffective disorder, or schizophreniform disorder	18

Note. Assertive community treatment: ACT, community-based rehabilitation: CBR, community care units: CCUs, serious mental illness: SMI, social worker: SW, occupational therapists: OTs, recovery communities: RCs, supported housing: SH.

users to do as much as possible for themselves such as personal care, shopping, cooking, domestic chores, and leisure activities [35, 45–53, 58–60]. In 2 studies, users were allowed to choose the service provider, type of treatment, and psychosocial support [61, 62].

Two studies described boarding houses which are occupied by high functioning individuals without 24 hours mental health staff onsite [44, 63]. In the first study, the boarding house was privately owned and provided short- and long-term stays from 1 day to 16 years [63]. Users were provided with 1–3 meals a day, shared cooking facilities and bathrooms. In a second study, all residents had lived in the boarding house for more than 20 years [44]. Users were provided with meals, assistance with cleaning their accommodation and bathing [44]. In both studies, managers occasionally provide practical support and refer for mental health support to case managers outside the boarding house [44, 63].

3.2.4. Living Independently. This was defined as outreach psychosocial support services provided by formal and/or informal mental health staff to users living with family or independently [30, 31]. Outreach services were described as ACT which means assertive community treatment (9 HICs) [64–73], while some were described as floating outreach services (2 HICs and 1 LMIC) [58, 74, 75]. ACT was provided to service users with community treatment court orders and/or history of poor engagement with services [64–72]. In the assertive services, the formal mental health workers visited the users in their own homes to provide intensive services such as treatment (i.e., medication and injections), psychosocial educational groups, social skills programmes, accompanying users to appointment and community activities, providing finance, and housing assistance [64–72]. Floating outreach services involved support workers who visited users in their own home to provide emotional support and assist them to take more responsibility for their daily living tasks such as shopping, cleaning, and cooking [58, 74, 75].

3.3. Results of Thematic Analysis. We present our data analysis according to Maslow's hierarchy of needs. Table 2 presents the papers reporting results relevant to each theme and for the different categories of accommodation services from both HICs and LMICs.

There is no evidence from Table 2 of differences in attention to different themes by papers reporting on HIC and LMIC settings except "accessible service providers" which only featured in the findings from HICs.

3.4. Physiological and Safety Needs

3.4.1. Housing as a Basic Need. A shelter is an important human basic need and is the basis for the housing first model for PLSMI. Once in accommodation, they then have a base from which to gain access to clinical services, safety, independent, and social relations. Six studies about

independent living units (5 HICs and 1 LMIC) described this theme [33, 46, 55, 57, 60, 76]. For example, the service provider stated that "*You have to house people before you expect them to work on life-changing things, like becoming sober or getting back together in a relationship or going to see a doctor regularly*" [76] (Service provider, USA independent living units). Service providers from India mentioned that "*finding a house for residents to live in a community. . .was an important step*" [60] (Service provider, India independent living units). This was from a study which we rated as moderate quality.

Housing was also appreciated by the service users who were housed after being institutionalized. For example a user from a moderate study mentioned that "*I used to sleep in the park, I used to sleep on the curb, I used to sleep in abandoned buildings with the rats this size come crawling whack! but, that's the life I led, you know*" [46] (Service user, USA independent living units). Another user reported how important it was for him to receive a new apartment as a first step towards recovery "*I offer you an apartment, "I thought, is it God who sent him, or what? But it was a fact. He really had an apartment for me. That was the first step, and I felt it as something exceptional*" [65] (Service user, Norway living independently).

3.4.2. Safety and Security. PLSMI need to be housed in a place where they will feel comfortable and safe. Seven [48, 51, 56, 60, 73, 76, 77] independent living units' studies (6 HICs and 1 LMIC), two [36, 37] halfway houses (1 HIC and 1 LMIC), and one supported housing from LMIC [41] described this theme. For instance, the service providers emphasized "*on the need for a safe environment to deliver care and support*" [73] (Service providers, Canada independent living unit). Another one highlighted that "*having stable housing represented a chance to have a home, a place where they felt safe and secure enough to address other, larger problems in their lives*" [56] (Service provider, USA independent living unit). One supported housing and one independent living unit studies from India described how supported housing services gave users a safe long-term home which was comfortable, and service providers observed them feeling at home while taking care of the house [41, 60].

Users' experiences of safety and security differed between studies. Some users from a high-quality study felt unsafe due to housing conditions and stated "*There's a wall falling. I think it can almost be condemned, an animal can crawl through the wall in the basement, on this side, right into the basement. They've got jacks holding the main beams up and stuff like that. You can see cracks in the wall. You can see a bit of light coming through*" [48] (Service user, Canada independent living units). Another user from a high quality study stated "*where we sleep is also not comfortable, . . . there is not even light there, some even have bedbugs in their rooms*" [37] (Service user, Ghana halfway house).

3.4.3. Food and Clothing. Housing should allow PLSMI have access to food and acceptable clothing. Three studies from halfway house (LMIC) [37], supported housing (HIC) [39],

TABLE 2: Showing the reference of articles that mentioned the themes in different accommodation services from both HICs and LMICs.

Country income category	Accommodation service	Physiological and safety needs				Psychological needs			Esteem needs				Self-fulfilment needs
		Housing as a basic need	Safety and security	Food and clothing	Accessible service providers	Sense of belonging and acceptance	Relationship with family	Relationship with other residents and carers	Developing independent living skills	Freedom and choice within accommodation services	Respect	Stigma and discrimination	Recovery or reaching full potential
HIC	Halfway houses (2)		38						38	38			40, 38
	Supported housing (4)			41		42	68			46	42	42	
	Independent living units (20)	35, 48, 57, 69, 78	50, 53, 58, 75, 78, 79	46	58, 55	47	41, 54, 58, 79	48, 50, 52, 54, 58, 60, 79	47, 49, 52, 61, 65	35, 48, 49, 52, 58, 70	34, 58, 47	34, 59, 79	34, 52
	Living independently (11)				66, 68, 73		45	67	60			71	68, 70
Total number of articles that mentioned the needs				18/37			13/37			17/37			6/37
LMIC	Halfway houses (2)		39	39		36	36, 39		39	39		36	39, 36
	Supported housing (2)		43			43, 44	43, 44, 62				44	62	
	Independent living units (1)	62	62						62			44	
	Living independently (1)						77	77					
Total number of articles that mentioned the needs				3/6			6/6			4/6			2/6

and independent living units (HICs) [44] described this theme. One of the service providers explained how they must choose between medicine and food as follows: "*The major problems we have are feeding and drugs. We cannot live with them without giving them medication, so we use the little money we have to buy them medicine*" [37] (Service provider, Ghana halfway house). In the same study, the user also mentioned that "*Here the feeding is poor... when we talk about feeding, we can eat some kinds of rice*" [37] (Service user, Ghana halfway house). Some independent living units users from Australia also complained about the quality of food because service providers bought cheap food, and in some cases, expired food [44].

On the other hand, some service users also complained about clothing in accommodation services. One of the users stated "*you got nothing to go out with. Look, if you want to buy a jacket or something like that, a decent jacket could be fifty or a hundred, and its wintertime. In the summer you might be able to just go in a shirt but that's basically it, but I mean you've got to get clothes that match the pants right, and the Salvation Army is kind of a joke. It's an old man's clothes. YOU LOOK STUPID!*" [39] (User, Canada supported housing). In the same study, users further described how they felt excluded from society due to lack of clothes: "*You don't fit in. You've got to go [out] dressed like this, and that's what you got. You're conscious of what you look like. You automatically look like a bum. If I didn't have the [wheelchair], I'd automatically just blend in as a bum*" [39].

3.4.4. Accessible Service Providers. Users appreciate the presence of service providers in accommodation services. Five HIC studies from independent living units [53, 56] and living independently [64, 66, 71] described this theme. For instance, "*service users felt safe knowing that they have service providers to help and mediate the process of them meeting the housing requirements*" [56] (Service provider, Canada independent living units). Even though some service providers promoted safety, workload made it challenging for them to provide care. One study found that users of living independent services reported about the service providers that are not always available to help: "*They really don't respond to your calls all the time. It's hard getting in touch with them. Sometimes they don't respond to your calls until the next day*" [66] (Service user, USA living independently). Some service providers reported a shortage of clinically trained staff as follows: "*There are many clients without a case manager and to me, that means that I or my coordinator must decide about whether [the client] needs extra care or not, and I don't think that's good enough. We're not medically trained; we need a backup*" [53] (Service provider, Australia independent living units).

A moderate quality study from Canada about living independently found that the service providers experienced burnout due to human resource shortages: "*It's like a culture of self-sacrifice on my team. The message is, if you really care, you'll stay late. It's a recipe for burnout*" [71]. These findings were similar to another living independently study from Canada where authors found that service providers also experienced burnout due to workload and the service providers stated "*Everybody was feeling a bit burnt because you could only do crisis intervention, there was no time to do anything else, you never got on top of anything*" [64]. However, these findings were from a study which we rated as low quality.

3.5. Psychological Needs

3.5.1. Sense of Belonging and Acceptance. Belonging and acceptance are social needs that involve the desire to have interpersonal relationships and feeling part of a group. Two high-quality studies and one moderate study from supported housing (1 HIC [40], 2 LMICs [41, 42]), one high quality study from LMIC about halfway house [34] and one high quality study from HIC about independent living units [45] described this theme. Service providers of a supported housing in India mentioned that "*users that stayed in a supported housing felt like they belong to a family when they are with other users and service providers*" [41]. This was from a study which we rated as moderate quality. However, some service providers and community members still struggled to understand symptoms of mental illness, and that made some PLSMI to feel like they do not belong to that accommodation. For instance, one halfway house user from South Africa felt excluded by their service providers and the society: "*You know it's difficult when one has a mental illness, it is very difficult to speak about belonging. I mean most people belong somewhere but people with mental illness tend to be displaced, they don't really fit in anywhere. This belonging, where do you fit in? Who are you? We are all different. So there's a whole lot of layers*" [34].

Some users felt the need to be accepted with their mental illness "*humanity means acceptance and understanding the sick person, that they are human like anybody else, they want to be loved and treated and handled with care*" [40] (Service user, Canada supported housing). This was similar to users who described their desire to experience a sense of acceptance through contact with the society: "*Main thing is, don't shun us. I think we can be normal; we want to get back to society*" [42] (Service user, Malaysia supported housing). For some users, inner acceptance was important before being accepted by the society: "*I have begun to understand that I should accept and be accepted for who I am, as I am, but at the same time I want to be like everybody else. But what is "normal" anyway?*" [45] (Service user, Sweden independent living unit).

3.5.2. Relationship with Family. When users are provided with housing, it becomes easier for them to have social relations. Four studies about independent living units in HICs [39, 52, 56, 77], four studies about supported housing (1 HIC [43] and 3 LMICs [41, 42, 60]), two studies about living independently (1 HIC [66] and 1 LMIC [75]), and two studies about halfway houses in LMICs [34, 37] described this theme. In Canada, service providers stated that "*some users complained about being lonely in independent living units, some appreciated connecting with their family*

members" [77]. Similarly, service providers from USA also mentioned that "*independent living units gave users a chance to reunite with their children*" [56]. The supported housing service providers allowed users to visit their relatives which strengthened their relationship with family. One service user stated that "*I have many relatives in Bangalore, and I visit them often. Whenever I visit them, I have a good time*" [41] (Service user, India supported housing). Similarly, in Ghana, "*users and providers expect halfway house services to help users reunite with their family members and make meaning contributions*" [37]. Another user from an independent living unit in Canada showed determination to maintain social relations with family as follows: "*I try to go to visit my mother once a month . . .it's three-o-five [$3.05] but one way or another I try and get there. I put money aside and try to see her because she lives alone*" [39].

Some users longed for social relations with their family members. For example, a user stated "*I have very little contact with my family, having contact with my sister makes me feel close to my family*" [52] (Service user, Denmark independent living units). Some users felt abandoned and forgotten by their family members who never visited them, "*My two siblings have not contacted me since I am here for nearly 6 years. I feel very sad that it ended this way. How can they be so busy to the extent that they just can't give me a call?*" [42] (Service user, Malaysia supported housing). This was similar to a South African study where halfway house users felt unsupported by their family members [34].

The living independently users from a USA study stated that "*service providers help them stay in touch with their family members by providing phone access to call them*" [66]. Service providers also play a role in promoting social relations between the users and their family members. For example, authors from supported housing studies conducted in Spain and India said service providers mediated between the users and their family members to stimulate the culture of social relations [43, 60]. This was also found in a living independently study from Ethiopia where service providers act as mediators in family conflicts: "*[the man with schizophrenia] was expelled from home because he kicked his mother. He was roaming the streets and was unable to stay at home because of his illness, But the family relationship improved significantly after I gave them the lesson from the module about interpersonal relationships in the family, he asked for her forgiveness and they started living together happily*" [75].

3.5.3. Relationship with Other Residents and Service Providers.
Not only do users want to have social relationships with their family but also with other service users and providers of accommodation services. Seven studies about independent living units from HICs [46, 48, 50, 52, 56, 58, 77] and 2 studies about living independently (1 HIC [65] and 1 LMIC [75]) described this theme. Some users from independent living units in USA had a family relationship with other residents: "*It really is an extended family, so I love it. I think that this is the best thing that ever happened to me*" [46]. Authors from a studies

conducted in Canada [77] and USA [56] found that independent living units allowed users to have intimate relationships with other residents, and one user stated "*I'm trying to build acquaintances into friendships, which I've had a really hard time with. I'm surprised I have a girlfriend now... because, [with] what I've gone through, I find it hard to get close to people*" [77] (Service user, Canada independent living units). On the other hand, relationship with other users created the feeling of safety and support. Independent living unit users from an England study felt safe and comfortable to share similar experiences with other residents: "*Yeah, I'm not very good at living alone. If anything goes wrong for me, I've got the support, yeah residents as well actually. But I've lived in supported accommodation because having other people around helps really*" [58]. Even service provider from an England study observed how users living independently supported each other: "*And I think, just from taking these ladies to the coffee mornings they have, you know it's not for everybody but, you know you can see that they've made friends, they've interacted with people, they've shared stories and also I think it's empowering really because you can help each other and sort of give each other tips on how you cope with your mental health*" [58].

In contrast, some users were happy to create social relations with their service providers. Users had family relationship with their service providers who kept them in treatment while enabling them to imagine the future, and the user stated "*Most people are concerned with how things are with family and friends. That's how it is, and for me living independent services function as a kind of family, making phone calls and taking care of things. It contributes to believing in the future*" [65] (Service user, Norway living independently).

Without social relations in accommodation, users feel lonely and disconnected from everyone. In a Canadian study, independent living unit users without social relations had this to say, "*I like it here, but I don't. It's very lonely here. I feel lonely because I don't have much companionship with other people. I feel a lot of disconnection from the community, you know, but I just wish I had more company, If there were someone sharing the apartment, I would feel much better, someone that I could trust so, companionship is the main thing I'm missing*" [50]. This was similar to an Ethiopian study about a user living independently who also wanted social relations to avoid being lonely: "*I have to start a social life, no one invites me because I am living alone, and I don't have social life. I am lonely*" [75]

3.6. Esteem Needs

3.6.1. Developing and Promoting Independent Living Skills.
Accommodation services help users develop independent living skills. Some PLSMI receive support to help them move and live independently while other users receive support in their permanent houses so that they can live independently. Six studies about independent living units (5 HIC [45, 47, 50, 59, 63] and 1 LMIC [60]), two studies about halfway houses (1 HIC [36] and 1 LMIC [37]), and 1 study

about living independently in HIC [58] described this theme. Independent living units users from India were free to participate in housing chores that helped them develop independent living skills [60]. Some users struggled with room maintenance and hygiene as a service provider highlighted, *"You'd give him clean sheets to make his bed, and they would not get put on, you'd take his sheets off, and he would not make his bed. So, I found I had to go in and make his bed. There were dirty cups and plates all through the room. I'd just, in the end, go in and grab them"* [63] (Service provider, Australia independent living units). This was from a study which we rated as moderate quality.

For some users, independent living was associated with the way services were provided. Independent living unit users in Norway and USA studies had keys to their permanent apartment which made them feel independent [47, 59], some independent living units users from Canada independently made choices about their home environment: *"Home is where I park my books and I can decide where to put my bookshelves. I do have those choices. I don't have to negotiate where I put the furniture [laughs]. If I want to do something like hanging a hammock in my bedroom, I don't have to worry about dealing with what other people think. I can be in my own space again, it's a good thing"* [50]. Similarly, independent living unit users from Sweden study also made choices about their apartments: *"It was fun to think through how I wanted it and how I would spend my money to make it just the way I wanted it. Now I think I have created my own personal style here"* [45].

Service providers of accommodation services aimed to deliver services in a way that promotes independent living. For example, in a halfway house study from USA, the service providers mentioned that *"they endorsed the importance of developing independent living skills as giving people life tools, which will keep them in housing"* [76]. Service providers from Australia described halfway house as a place for users to learn independent living skills, *"This is only their transition base they are going to go to the community to live either on an independent accommodation or a supported accommodation. They are going to go one step forward from where they were this is a transition period for them to learn some of the skills to live in the community, and depending upon how much they learn and how much the interest they have, depending upon the recovery goal"* [36]. Similarly, in LMICs, some service providers also viewed independent living as an end outcome of accommodation services. For instance, in a study from Ghana about halfway houses, service providers expect users to gain independent living skills before discharge, the service provider stated *"We expect that they can work for themselves, and they will never depend on somebody. We are expecting that, after the rehabilitation, they can use the things that they learn from here to go out there to manage their lives without depending on somebody"* [37]. On the other hand, a living independent study found that the service providers from England help build users' capacity to live independently and maintain their home, and the service provider stated *"We don't treat people, but we are more like life coaches now. We have kind of our main role is to help people to maintain their independence, maintain their tenancies, stay in their own home basically"* [58].

3.6.2. Freedom and Choice within Accommodation Services. Service users have a right to freedom and choice when they are in accommodation services. Six independent living unit studies from HICs [33, 46, 47, 50, 56, 68], 2 halfway house studies (1 HIC [36] and 1 LMIC [37]), and one supported housing study from HIC [44] described this theme. In USA, independent living unit users appreciated the freedom to come and go as they liked. For example, one user said, *"I like the idea that, you know, you can come and go as you want. If you want to spend nights out with family or friends or whatever, you know, you can just come and go and the staff here has never really had a lot of restrictions on us for anything"*. Some users appreciated being able to eat what they like, *"you can cook whatever you want. You can cook hamburgers or chicken and chips or whatever"* and to organize their social life: *"Yeah, we're like free. I have a friend coming. She can come and eat with me. Then we talk and go out together"* [50] (Service user, Canada independent living unit). Such freedom allows users to feel like they are in control of their life and improves the quality of life. In halfway houses from Ghana, the service providers allowed users to be involved in their treatment plan, *"users contributed to their service plan and reported to service providers if they experienced side effects from the medication"* [37]. This was not the case for other users in USA-supported housing where authors described how their freedom was limited because they had to report everything to service providers [56]. On the other hand, halfway house service providers from an Australian study described how allowing users to live freely led to better relationships with the users: *"I think that, taking them away from being so restricted and putting them into an environment, where they've got, more rights, so much more freedom, I think automatically they just relate to you so much better, it's easier to establish a rapport cause you're not trying to take anything away from them, they can come and go as they please"* [38]. Although freedom is important in independent living units some service providers from Canada were complaining about negative behavior associated with having freedom, such as drug use and dealing, excessive noise, and damaging apartments [33].

In contrast, living independent users from an Australian study reported limitations on their choices of activities, for example, *"Harry had been encouraged to attend the weekly cooking class despite informing his case manager and the researcher that he already knew how to cook"* [68]. Similarly, in a South African study, halfway house users experienced pressure to attend group sessions which they found difficult, *"My illness made me very solitary in the sense that I like being on my own, you know, and what they do is, you're kind of contained, so you must do it. You can't sit back and say no I don't want to do this. You must participate in the programme, you know. So, it's hectically interactive because you're in groups all the time"* [36]. Supported housing users from another Australian study experienced restrictive practices that limited their freedom of movement, *"If you are not there for your meals then you get nothing. They generally lock the kitchen around 6 p.m"* [44].

3.6.3. Respect. PLSMI feel happy when they are respected for who they are rather than being judged because of their illness. Three independent living unit studies from HIC and 2 supported housing studies from both HIC and LMIC described this theme. For some users, having a job made them stand up for themselves and feel respected: *"I think that having a job made me stand up for myself more, get respect from people, or show respect to people"* [32] (Service user, USA Independent living unit). Some users appreciated being respected *"being respected as a person [means] you're a human being, called by your own name and not being called crazy"* [40] (Service user, Canada supported housing). In USA, independent living unit users felt respected by their service providers: *"Yes [they respect my privacy] . . . They'll call and let me know. And plus I be here every day, so they tell me when they going' to my apartment to check"* [58]. Independent living units users in a Swedish study reported how service providers respected their personal integrity and privacy: *"It's good that our own personal space at home is respected by the coaches they don't just walk in uninvited"* [45].

In contrast, one service user from Malaysia did not like how they were treated by the service providers in supported housing. Users described how they were exploited and bullied by the services: *"We need staff who are humble, who can treat us with respect. The center should hire knowledgeable staff who will not judge us"* [42].

3.6.4. Stigma and Discrimination. PLSMI experienced stigma and discrimination from family and community. Four independent living unit studies (3 HICs [32, 57, 77], 1 LMIC [60]), two supported housing (LMIC [42], HIC [40]) and one living independent study from HIC [69] described this theme. Users of supported housing in Malaysian felt humiliated and threatened by their family because of their mental illness, one user quoted the words from her mother who threatened her: *"You want to go to dinner, you cannot talk, once you open your mouth people will know you are abnormal, so I just sit quietly even though I like to talk"* [42]. Some users from independent living units in USA were scared to work because of negative judgements from the community: *"what if I'm working somewhere and someone finds out that I have a mental illness? That scares me because people outside of the mental health community, you know, when they think of mental illness, they think of really dangerous people, like serial killers for example. You know people who are evil and dangerous, and out to hurt them"* [32]. Some people have a stigmatizing attitude that PLSMI should not have housing provided. In India, *"the manager of a supported housing project experienced challenges before finding a house for residents to live in a community because the property owners stigmatized PLSMI"* [60]. Similarly, users of supported housing in Canada also felt vulnerable, excluded, and alienated by society: *"A lot of people around town think that I should not have my own room here [and] that I should be in a mental hospital"* [40]. However, some users stated that *"living in quality independent living units helped reduced the stigma they experienced from the community"* [77] (Service user, Canada independent living unit).

Some mental health accommodation services also contribute to PLSMI experiencing stigma from the community. Users from a moderate study conducted in Canada mentioned how living independent services continued to identify them as people in need of mental health services, and the delivery of services contributed to stigma: *"Someone knocking at your door, one, twice, three times a day, four people with keys, its odd, it's a strange feeling. And those white carers just come coming in and out. So, lots of people who live in the building already know you are psychiatric patients. Nurses don't even conceal the medication. It does take away your independence"* [69]. Yet in USA, the service providers of independent living units were trained to give users the benefit of the doubt in response to stigmatizing triggering events* [57].

3.7. Self-Fulfilment Needs

3.7.1. Recovery or Reaching Full Potential. Recovery is when accommodation services help PLSMI reach their full potential despite the presence of a mental illness. Three independent living unit studies from HICs, three halfway houses studies (2 LMICs and 1 HIC), and two living independent studies from HICs described this theme. In Ghana, users and providers mentioned that *"halfway house services aim to achieve recovery by promoting independent living, managing of illness, social inclusion and economic empowerment"* [37]. Recovery is also linked to community integration, *"users appreciated the opportunity to work which provided them with a sense of accomplishment and made them feel like contributing members of the society"* [32] (Service provider, USA independent living unit).

Some living independent services from USA helped users recover from the symptoms of mental illness, *"Recovery is very important to me because I don't want to get sick anymore. Because that's the worst thing in my life that happened. So, recovery is good. Nobody wants to walk around here being sick. If you could only be in my shoes and walk around, being sick like that, nobody would want to go through that. So recovery is a very good thing"* [68]. Similarly, halfway house services in South Africa *"helped users with clinical recovery but limited their personal recovery by protecting them from learning how to reintegrate into the community"* [34].

One user from living independent services in Australia hoped that accommodation services will help them gain their physical energy: *"Recovery for me is about energy and having the physical energy to get out of the house, exercise and hopefully one day play tennis. I like the idea of going swimming with my nephews in the future"* [68]. In Canada, independent living unit service providers stated that *"allowing users to be responsible for organizing their own social life contributed to their recovery"* [50].

To achieve recovery, service providers of accommodation services need to work together with PLSMI. For example, halfway house service providers from an Australian study described recovery as a collaborative process where service providers actively listen to the users' needs and take them seriously: *"It's all about collaborative partnership and*

this is something I talk to clients [consumers] about all the time, there's no point in me telling you what I want you to do if it doesn't fit your interests and your values. I need to know what you want to do so then I can support you in identifying ways of achieving what it is that you'd like for yourself" [38]. Some halfway house service providers from another Australian study defined recovery as a process influenced by the user's mindset and how they engage with the services provided: *"well the recovery is what happens to the client. They have that; the recovery is not only from the recovery from the mental health/mental illness situation. It is the recovery from their mindset, their insight and their ability, their confidence, their self-esteem; everything is getting recovered. The whole thing, the whole setup itself, from the beginning all the way up to there, what will we do. The whole thing is a rehabilitation process"* [36].

4. Discussion

In this rapid review, we synthesized 43 international studies to explore the service users' and providers' experiences of accommodation services. Only 6 studies were from LMICs indicating limited evidence about accommodation services for PLSMI compared to HICs. There are many more studies on independent living units and living independently in HICs. Studies from both HICs and LMICs reported on all the needs except for accessible service providers which only featured in the findings from HICs. In essence, the experiences of users and providers about accommodation services for PLSMI were strikingly similar across the globe despite limited evidence from LMICs. This was not surprising given that mental healthcare services are low on government health expenditure in both HICs and LMICs [6, 78].

Shortage of resources made it challenging for some service providers to provide care because they had to choose between buying medicine or food. Service users complained about the quality of food and clothing. While service users needed greater availability of service providers, providers were at risk of burnout. Service providers valued promoting independent living skills, and users appreciated having freedom of choice. Service providers and users also mentioned that housing promoted social relations and service providers were trained to respond to stigmatizing events. However, some users continued to experience stigma from their family members, society, and service providers.

There was evidence in both HIC and LMIC of trying to deliver services according to the WHO guidance on community mental health services [6]. The WHO housing and health guidelines [2] are consistent with PLSMI experiences of housing as a primary need for themselves; housing helps them meet other essential needs that are connected to health such as safety, food, and access to healthcare. Housing PLSMI also means providing them with a place where they will be able to live independent, be supported to make their own decisions about treatment and care, and be encouraged to participate in community activities and have social relations rather than only focusing on reduction of mental health symptoms [6].

The WHO recommends healthy housing should have sufficient space, comfortable temperatures, safe drinking water, adequate sanitation, electricity, and protection from pollution and harmful hazards [2]. PLSMI experiences indicate the importance of these quality issues. Sustainable housing is an issue for a larger percentage of the global population where low-cost yet efficient and long lasting housing is needed [79, 80]. This applies to PLSMI too.

Our findings show that users have different accommodation service needs, and service providers understand that the services should be individualized and user centered. Existing evidence suggests that it is possible for service providers to deliver user-centered services and for mental health users to achieve recovery [81, 82]. This can be achieved only if the service providers focus on the users' strengths, provide with resources and give them the opportunity to be in control of their lives [82].

4.1. Implications for Practice, Policy, and Research. Our review of these experiences provides evidence for service providers and policymakers to work towards housing PLSMI to promote independent living, safety, and social relations. Research evidence suggests that housing PLSMI helps promote the stable use of mental health clinical services and lower the inpatient hospitalization rates [83–85] and so reducing burden on health services. In LMICs where there is a shortage of resources, a safe home or accommodation of reasonable quality may need to be considered in these situations to house PLSMI.

The WHO guidance on community mental health services [6] included relatively little research evidence on existing services in LMICs; our review found only 6 articles about the experiences of users and providers of accommodation services in LMICs. An expansion of this research literature would more clearly bring the user and provider voice into the development service quality assessments [86, 87] and evidence-based policy.

4.2. Strengths and Limitations. We included studies of both user and provider perspectives and relevant studies from LMICs. Using Maslow's hierarchy of needs enabled a comparison regardless of the country's policies or legislation because it is generic to all human beings. However, our inclusion criteria meant that we exclude experiences of those who are homeless with serious mental illness, and they are no longer receiving accommodation services. This could mean that we missed their views about why accommodation services did not work for them. There is also a possibility that we missed papers where accommodation was taken as a given such as countries with strong social housing programmes.

5. Conclusions

Globally, PLSMI and service providers value the provision of accommodation services, but their experiences of this provision are relatively poor compared to mainstream society suggesting PLSMI remain disadvantaged. Further

research should explore low-cost housing options that will provide quality person-centered care for PLSMI [88, 89].

Abbreviations

HICs: High income countries
LMICs: Low-middle income countries
NGO: Nongovernmental organizations
PLSMI: People living with serious mental illness
SMI: Serious mental illness
WHO: World Health Organisation.

Data Availability

We have included search strategy as additional file 1. All other supporting documents which informed the development of this review (data extraction, quality appraisal, and SRQR guidelines) are freely available on request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Authors' Contributions

SM conducted the search, screening, data extraction quality appraisal, and analysis and wrote the entire review. FG, LR, and JG supervised the whole project by being involved in the design of the research protocol and manuscript, provided input at all stages of the review, reviewed, and revised the manuscript. CZ and SA were involved in title and abstract screening, read, and provided input in the draft version of the manuscript. All the authors have read and approved the final version of the manuscript.

Acknowledgments

Supplementary Materials

Additional file 1: search strategy. (*Supplementary Materials*)

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